

19. OCCURRENCE OF *ZEBRIAS JAPONICUS* (BLEEKER)
(SOLEIDAE: PISCES) IN THE BAY OF BENGAL, OFF
VISAKHAPATNAM

(With a text-figure)

Eight species of the genus *Zebrias* Jordan and Snyder, 1900, have so far been recorded from Indian waters (Day 1878, Norman 1928, Talwar & Chakrapani 1967, Rama Rao 1967, Yazdani 1976, Joglekar 1976, Oommen 1977). Another species identified as *Zebrias japonicus* (Bleeker), was collected from the trawl catches off Visakhapatnam. The only other region of its occurrence is Japan (Talwar & Chakrapani 1967) and Taiwan waters (Chen and Weng 1965). As it is recorded for the first time from India, a short description is given (Fig. 1). Synonymy of the species is given by Chen & Weng (1965).

Material: One specimen measuring 100.0 mm in standard length, from trawl catches, off Visakhapatnam on 28-10-79.

Counts: D. 85; A. 72; P. (eyed) 9; P. (blind), 5 (rudimentary); V. 5; C. 17; L. 1. 95;

Vertebrae 44 (from radiograph).

Measurements: In standard length: Head length 5.5; Body depth 2.9; In head length: Snout length 3.6; Eye diameter 3.6; Pectoral fin length (eyed) 2.0.

Description: Body elongate, elliptical, gradually tapering posteriorly; head small; eyes separated, upper eye slightly in advance of lower eye. Interorbital space about half of eye diameter. Anterior nostril on ocular side a long tube, backward, reaching anterior border of lower eye, posterior shorter than anterior, covered by a flap. Mouth moderate, curved; Papillae are present on blind side from upper lip to dorsal fin beginning with series of fringes along opercular margin. Teeth developed on blind side only. Scales rough, strongly ctenoid on both sides. Head and interorbital space covered with scales. One straight lateral line on

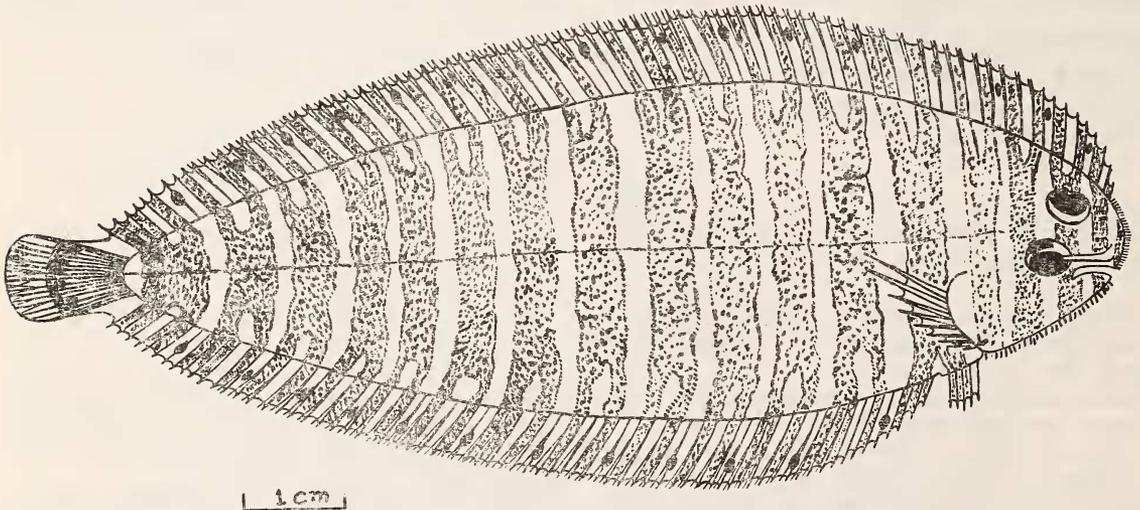


Fig. 1. *Zebrias japonicus* (Bleeker).

MISCELLANEOUS NOTES

both sides. Dorsal fin beginning on dorsal profile above upper eye. Dorsal and anal rays branched up to half their length, excepting anteriormost and posteriormost. Dorsal and anal partially confluent with caudal. Caudal fin rounded, rays (excluding upper and lower two) branched. Pectoral fins asymmetrical with unbranched rays; small and rudimentary on blind side. The upper rays of right pectoral prolonged. Pelvics symmetrical.

Coloration: Colour in formalin pale brown, with 18 cross bars from caudal to head, which are wavy and forked on dorsal and anal fins. A black spot on the dorsal and anal fins between the extensions of the cross bars. Dorsal and anal fins on blind side bluish black; caudal black, edge milky white. Blind side white.

Remarks: The description of the specimen under report agrees with that given by Chen & Weng (1965) for *Z. japonicus* from Taiwan. It also agrees with the counts of lateral

line scales and caudal rays; and morphometric measurements of the body depth and head length mentioned for the Japanese specimen by Talwar & Chakrapani (1967). The present specimen however differs from the Taiwan specimen in having more number of dorsal, anal, caudal, pectoral fin rays and lateral line scales (78,65,16,4 and 85 respectively in Taiwan specimen). These differences may be attributed to geographic variation.

ACKNOWLEDGEMENTS

We wish to express our sincere thanks to Dr. C. C. N. Murty, Head of Zoology Department, Andhra University, Waltair and one of us (MRM) is indebted to Shri V. Sitarama Swamy, Head of Zoology Department, Mrs. A. V. N. College, Visakhapatnam, for providing research facilities and for constant encouragement.

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April 29, 1980.

REFERENCES

- CHEN, J. T. F. AND WENG, H. T. C. (1965): A review of the Flatfishes of Taiwan, Published by Tunghai Univ., China. *Biological Bulletin* 27: 39-42.
- DAY, F. (1878): The fishes of India. (Reprinted ed., 1958), Dawson, London. 430-431.
- JOGLEKAR, A. (1976): On a New Species of the Genus *Zebrias* Jordan and Snyder, 1900 (Pisces: Soleidae) from Kerala Coast (India). *Zool. Anz., Jena* 197.1/2, S. 67-70.
- NORMAN, J. R. (1928): The flatfishes (Heterosomata) of India, with a list of the specimens in the Indian Museum. *Rec. Indian Mus.* 30 (2): 173-215.
- OOMMEN, V. P. (1977): New Records of bathypelagic fishes from the Arabian Sea, with description of a new species. *J. Bombay nat. Hist. Soc.* 74 (2): 282-287.
- RAMA RAO, K. V. (1967): A new Sole *Zebrias cochiniensis* from India. *J. Zool. Soc. India.* 19 (1 & 2): 99-100.
- TALWAR, P. K. AND CHAKRAPANI, S. (1967): A new flatfish of the genus *Zebrias* Jordan and Snyder (Soleidae) from the Orissa Coast, India. *Proc. Zool. Soc., Calcutta.* 20: 119-121.
- YAZDANI, G. M. (1976): The specific identity of the sole, *Zebrias zebra* (Bloch) in Indian waters. *J. Bombay nat. Hist. Soc.* 73 (2): 408.